

Hippocampal Modulation of Associative Learning
Grant number N00014-91-J-1764
ANNUAL PROGRESS REPORT
1992

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Much of our research is derived from visits to Dr. Nestor Schmajuk's laboratory at Northwestern University and review of his maze-based spatial learning and cognitive mapping experiments. Some of his spatial learning experiments are based on interactive computer display of a problem to be solved.

Our collaboration and interaction with Dr. Schmajuk at Northwestern University suggested two lines of scientific inquiry:

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- 2) Does the performance of "right-brain" oriented people differ from that of "left-brain" oriented people (artistic vs. analytic)?

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- How realistic could these mazes be made using personal computers?
- How much effort is required to improve the reality of these mazes?
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We have reached the point in our research where we can build virtual reality mazes and study how this affects spatial learning.

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## **PUBLICATIONS:**

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# OFFICE OF NAVAL RESEARCH ANNUAL REPORT 1992

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# Nestor A. Schmajuk 1992

Graduate student funded: Hugh T. Blair

## PAPERS PUBLISHED

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- 3. Quinn, K.J., Schmajuk, N.A., Baker, J.F., and Peterson, B.W. Simulation of adaptive mechanisms in the vestibulo-ocular reflex. <u>Biological Cybernetics</u>, 67, 103-112, 1992.
- 4. Quinn, K.J., Schmajuk, N.A., Jain, A., Baker, J.F., and Peterson, B.W. Vestibuloocular reflex arc analysis using an experimentally constrained neural network. <u>Biological Cybernetics</u>, 67, 113-122, 1992.

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